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Transgender patient satisfaction following reduction mammaplasty☆

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KEYWORDS
Reduction mammaplasty;
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Summary *Aim:* To evaluate the outcome of reduction mammaplasty in female-to-male transgender patients.
Method: A 5-year retrospective review was conducted on all female-to-male transgender patients who underwent reduction mammaplasty. A postal questionnaire was devised to assess patient satisfaction, surgical outcome and psychological morbidity.
Results: Seventeen patients were identified. The senior author performed bilateral reduction mammaplasties and free nipple grafts in 16 patients and one patient had a Benelli technique reduction. Complications included two haematomas, one wound infection, one wound dehiscence and three patients had hypertrophic scars. Secondary surgery was performed in seven patients and included scar revision, nipple reduction/realignment, dog-ear correction and nipple tattooing. The mean follow-up period after surgery was 10 months (range 2–23 months). Twelve postal questionnaires were completed (response rate 70%). All respondents expressed satisfaction with their result and no regret. Seven patients had nipple sensation and nine patients were satisfied with nipple position. All patients thought their scars were reasonable and felt that surgery had improved their self-confidence and social interactions.
Conclusion: Reduction mammaplasty for female-to-male gender reassignment is associated with high patient satisfaction and a positive impact on the lives of these patients.

Gender dysphoria is a term used to describe transsexuals' discomfort with their anatomic sex, or their sense of inappropriateness in the gender role of that sex.[1] Sex reassignment treatment is associated with positive benefits in relieving gender dysphoria[2] and includes hormone therapy, psychotherapy, real-life experience in the desired gender and sex reassignment surgery. Overall, results are more favourable for female-to-male (FM) than male-to-female (MF) transsexuals. Although transsexual surgery is often synonymous with genital surgery, reduction mammaplasty is thought to be of greater practical importance in the daily

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life of FM transsexuals. However, published literature on patient satisfaction and surgical outcome following this procedure is lacking.

The aim of this study was to evaluate the outcome of reduction mammaplasty in FM gender reassignment patients. Our objectives were to assess the preoperative expectations, satisfaction with surgery, postoperative complications and the impact of reduction mammaplasty on daily life.

Patients referred for breast surgery to the senior author were assessed in accordance with the Standards of Care of the Harry Benjamin International Gender Dysphoria Association[3] by the referring psychiatric team.

Method

A retrospective review was carried out on all FM gender reassignment patients between 2000 and 2005. The hospital computer coding system was used to identify patients. The information collected from the medical case notes included age, co-morbidity, smoking habits, procedure performed, postoperative complications, duration of hospital stay and follow up.

A postal questionnaire was devised for the study and reviewed by a sexual problems psychiatrist. The questionnaire included a preoperative and postoperative section and incorporated a basic evaluation of psychological outcome. Non-responders were approached by mail twice to encourage them to complete the questionnaire and information was collected anonymously.

Three questions addressed the preoperative period and patients' expectations, adequacy of counselling and support from family and friends. Patients were asked to circle their answer from a choice of three responses.

Eight questions considered the postoperative period and were of the same format with a choice of three responses. Patients were asked to rate their overall satisfaction with surgery, quality of scars, nipple position and nipple sensation. Questions also addressed regret following surgery, confidence about body image and whether genital surgery had already been performed or was desired. The patient was asked to rate the impact of surgery on self-confidence, personal relationships, social interaction, work and hobbies. Finally, patients had an opportunity to comment on any other aspects of their surgery or care.

Surgical technique

The senior author's technique involves bilateral mastectomies and free nipple grafts.[4] The majority of the breast tissue and overlying skin is excised via a sub-mammary incision. The aim is that the resulting scars simulate the inferior and lateral margin of the pectoralis major muscle. The nipple is harvested as a 2 cm full thickness graft. The 2 cm finger hole in the Langenbeck retractor can be used as a template. If the original nipple is very large, a small cone from the top is excised and placed in a central hole created in the new nipple. The position of the nipple-areolar complex (NAC) is determined by crossing suture thread measuring lengths from three key points on the chest wall: the midclavicular point, the sternal notch and a point on the vertical axis from the sternal notch downwards to meet a transverse line from one upper arm across to the other arm (the position on each arm being midway between the volar elbow crease and the anterior axillary fold apex). This technique was used in the majority of patients, although in early cases nipple position was determined largely by intuition.

Results

Results are divided into those gathered from the medical case notes (Table 1) and those from the questionnaire responses (Table 2).

Results from medical case notes

There were 17 FM patients who underwent reduction mammaplasty between August 2000 and December 2005. Their ages ranged from 20 to 45 years (mean 31 years). The senior author performed bilateral reduction mammaplasties and free nipple grafts in 16 patients, and one patient had a Benelli technique reduction.

Results from questionnaire

Twelve patients returned the postal questionnaire (response rate 70%). On the envelope of three patients, it was indicated that the patient was no longer known at that address. Therefore, 14 questionnaires were regarded as having reached the patients. The time lapse between surgery and completing the questionnaire ranged from 8 months to 5 years (mean 32 months). Eleven out of 12

Table 1 Results from medical case notes

Age	Years
Mean	31
Range	20—45
Co-morbidity	Number of patients
Asthma	7
Seizures	1
Depression	1
Hypothyroidism	1
Smoking habits	Number of patients
Smokers	4
Non smokers	8
Ex-smokers	5
Length of inpatient stay	Days
Mean	3
Range	1—7
Postoperative complications	Number of patients
Haematoma	2
Wound infection/dehiscence	1
Hypertrophic scars	2
Length of follow up	Months
Mean	10
Range	2—23

Table 2 Results of postal questionnaire

Preoperative issues			
Before you had this operation, how much of a positive impact did you think it would have on your life?	Huge 10	Moderate 2	Minimal 0
Did you receive sufficient counselling before the operation?	Very sufficient 7	Sufficient 4	Insufficient 1
Before the operation, how supportive were your:	Very supportive	Supportive	Unsupportive
a) Family?	3	5	4
b) Friends?	7	3	2
Postoperative issues			
How would you rate your overall satisfaction with surgery?	Very satisfied 8	Satisfied 3	Unsatisfied 1
How would you rate the quality of your scars?	Highly satisfactory 5	Satisfactory 6	Unsatisfactory 1
Has nipple sensation been preserved?	Not at all	A little	Completely
Left nipple	5	4	3
Right nipple	5	4	3
How satisfied are you with the position of your nipples?	Very satisfied 7	Satisfied 2	Unsatisfied 3
How much more confident do you feel about your body since having the operation?	Much more 10	A little more 2	No more confident 0
Do you ever regret having surgery?	All of the time 0	Sometimes 0	Never 12
To what extent would you recommend the surgery to others?	Highly recommend 10	Recommend 1	Would not recommend 0
Are you planning to have or have you had any genital surgery or further plastic surgery?	Yes 7	No 2	Undecided 3

patients felt that they had received sufficient preoperative counselling and most patients (83%) expected surgery to have a huge positive impact in their lives. Before surgery, patients' friends were slightly more supportive than family (83% versus 66%). Only two patients felt unsupported by both family and friends preoperatively.

All patients were pleased with the overall results of surgery and would recommend this procedure to others. Eleven patients were happy with the quality of their scars. Nipple position was satisfactory in nine patients and seven patients had nipple sensation. None of the patients expressed regret and all patients felt more confident about their body image. Seven patients had undergone or were planning to undergo genital surgery and three patients remained undecided.

All patients felt the surgery had a positive impact on self-confidence, personal relationships, social interaction, work and hobbies.

Discussion

FM transsexuals accepted for surgery usually have reduction mammaplasty as their first operation. Many never undergo genital surgery due to disappointing cosmetic and functional results.[3] Compared to genital surgery, reduction mammaplasty has a low rate of serious complications.

Several authors have reported on the technique of chest wall contouring in the FM patient.[5,6] Three patients in the study were unhappy with the position of their NACs and some have requested to be more involved in deciding on the size and position of their NACs preoperatively with the aid of photographs. Surgeons should be aware that a standardised technique, although acceptable to many patients, might require modification to suit individual patient preference. Because residual breast tissue remains using this technique, these patients could be considered for breast cancer screening.

Although a high percentage of patients requested revision procedures, all patients were satisfied with the overall result of surgery. Ten out of 12 patients provided additional comments to emphasise the positive benefits of surgery on their lives. Before surgery, they described painful binding of their breasts, social isolation and depression. This procedure has allowed many patients to live a full and normal life. However, an important issue was raised by one patient in whom surgery had highlighted other insecurities masked by the desire to undergo a mammaplasty procedure. Although many regard surgery as the only way to relieve suffering for transsexuals, others would argue against it on ethical and moral grounds. Whether the National Health Service should fund this surgery remains controversial given the need for rationing of healthcare in the UK.

Despite the positive impact of reduction mammaplasty on the lives of FM transsexuals, this study highlights that many patients also desire genital surgery in order to complete the transition. However, reduction mammaplasty should be considered as the first procedure as this may be sufficient for some patients to live comfortably in the desired gender.

The study was limited by a small sample size and incomplete response to the questionnaire. Therefore, we

acknowledge that there may be response bias. The small sample size also limited the use of statistical tests to analyse the results. We feel that the results reflect the patients treated within this unit but may not represent this group as a whole. Whilst we think the questionnaire devised for the study provided useful information on surgical outcome and patients' attitudes for this procedure, it is not a validated measure. Unfortunately, psychological questionnaires used in previous transgender assessment do not address the specific surgical outcomes associated with this procedure.[7–10] Conversely, the validated methods used to assess quality of life after reduction mammaplasty in females do not address the issues of transgender surgery.[11,12]

Reduction mammaplasty is relatively straightforward procedure sought by FM transgender patients, associated with high patient satisfaction and a clear positive impact on the lives of these patients.

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